## COMMENTS ON THE DRAFT INTERIM REMEDIAL ACTION PLAN (IRAP) PUBLIC COMMENT PERIOD: AUGUST $22^{\rm ND}$ TO SEPTEMBER $23^{\rm RD}$ , 2005 PUBLIC MEETING: SEPTEMBER $7^{\rm TH}$ , 2005

Comment from Mr. and Mrs. Gerald Hall, 27446 Arriola Avenue, Saugus, CA 91350

<u>Comment 1a</u>: Total destruction of perchlorate by biological means strikes us the best method.

- a. Why would this method be "more difficult to reliably operate than ion exchange systems?
- b. What "further treatment prior to pumping it into the distribution system" would be required?
- c. Why is this a problem?

Response: In pilot studies of the fluidized bed reactor (FBR) and fixed bed reactor (FXB) biological treatment systems, perchlorate removal to concentrations less than the laboratory detection limit was achieved in the FXB system using only organisms indigenous to the Saugus Formation. The FBR system did not achieve perchlorate removal to concentrations below the detection limit over a period greater than eight days. Although the present worth costs of ion exchange treatment systems and biological treatment systems are very similar, the ion exchange alternative ranks very high in the implementability criteria. Ion exchange systems represent a physiochemical process that can be controlled and monitored more easily than biological treatment systems. In general, biological water treatment systems are more subject to upset than are physiochemical treatment systems. Initial startup or restoring a biological treatment system following an upset event requires significant operator attention. In addition, the California Department of Health Services (DHS) has only issued conditional acceptance of biological treatment using FBR to remove perchlorate from drinking water at another site while ion exchange treatment is a DHS-approved technology for drinking water applications.

Following treatment by ion exchange, the groundwater would be disinfected. If biological treatment were selected, the groundwater would require filtration and disinfection prior to pumping into the distribution system. This filtration step could be provided at CLWA's existing Rio Vista Water Treatment Plant, but treating groundwater would displace capacity needed for treatment of imported surface water. It would also add an ongoing operational cost to the biological treatment alternative.

<u>Comment 1b</u>: In the ion exchange process no mention is made of what happens to the perchlorate exchanged.

- a. Where would the exchanged perchlorate go?
- b. What will happen to it?

<u>Response</u>: In the ion exchange process, perchlorate is captured by the resin within the exchange vessels. The spent resin will be managed as a solid waste and will require periodic removal, replacement, and offsite incineration. During incineration, the resin and the perchlorate ion are completely destroyed, eliminating the possibility of generating a new waste stream.

<u>Comment 1c</u>: What is your rationale for choosing non-destructional exchange over destruction?

We feel that money (if this is a consideration) should be no object when considering public safety – Sue Whittaker, the Defense Dept. and Federal government if necessary – But do it right the first time!!

<u>Response</u>: The "non-destructional" treatment (ion exchange) method can be operated and monitored more easily than the "destructional" (biological) method. As mentioned above, the present worth costs to implement and maintain are similar. Also, the perchlorate captured by the ion exchange resin will be destroyed via incineration at an offsite location. Finally, the ion exchange treatment is expected to be more readily approved by DHS and accepted by the community.

Comment from Ms. Stephanie Young, 25552 Penbrook Place, Santa Clarita, CA 91350

<u>Comment 2a:</u> "Having read the summary, it seems that the chosen option #2 is the best option. Please proceed".

Response: Thank you for your comment.

Comment from Mr. Tom Carver, 27845 Crookshank Drive, Saugus, CA 91350

<u>Comment 3a</u>: We appreciate receiving information concerning toxic substances. In the future, would you mail this information to Tom Carver at the same address, 27845 Crookshank Drive, Saugus, CA 91350. Toby Carver is our son and previous homeowner. Thanks.

<u>Response</u>: Thank you for your interest in the project, your name has been added to our mailing list.

Comment from Dr. Gary Ordog, (1) Santa Clarita Water Conditioning, (2) Medical Toxicology, 23206 Lyons Avenue #103, Santa Clarita, CA 91321

<u>Comment 4a</u>: High volume water purification may not continuously remove all the perchlorate and associated contaminants from our homes.

I recommend a whole house water purification installed by Santa Clarita Water Conditioning, Inc.

It has 5 stages including hepa, antimicrobial, hydromagnetic, granular activated carbon, quartz, and reverse osmosis.

As most toxics are absorbed from non-drinking water exposure in the house, whole house filtration is required. I believe our system is the best commercially available for this purpose.

I believe your agency should agree, and endorse such a system.

<u>Response</u>: The mission of the Department of Toxic Substances Control (DTSC) is to protect human health and the environment by cleaning sites where releases of hazardous substances have occurred or will potentially occur. The individually installed treatment systems cannot be monitored by DTSC and therefore cannot replace the treatment method proposed in the IRAP.

Comment from Ms. Valerie Thomas, P.O. Box 220907, Newhall, CA 91322

Comment 5a: It's been a long battle to get to this point. Please emphasize even more strongly how the community will be as well protected under DTSC procedures as we would be under a full EIR. Please also discuss more about the choice of alternative 2 – that it has been employed successfully in other communities and that the other alternatives would require more time to get Health Dept. approval and make Santa Clarita, in effect, a guinea pig.

Thank you for your patience and hard work on our behalf.

Response: The Castaic Lake Water Agency (CLWA) prepared an Initial Study for the proposed containment and restoration plan as required by the California Environmental Quality Act (CEQA) and determined that any potential impacts associated with implementing the proposed containment and restoration can and will be readily mitigated. The proposed mitigation measures are described in the Draft Mitigated Negative Declaration. On this basis, the impact of this project is not of the magnitude that requires preparation of an Environmental Impact Report (EIR) under CEQA. In summary, the project is not expected to create any unmitigated adverse ecological or human health impacts; to the contrary, it is expected to prevent a plume of perchlorate in groundwater from contaminating other water supplies in the area and posing unacceptable risks to human and/or ecological receptors. CLWA is the lead agency for the CEQA process and its Board of Directors will be responsible for certifying the CEQA documents.

Ion exchange treatment systems are currently being used to remove perchlorate from the water supply in several California communities, including: the West Valley Water

Company in West San Bernardino, the Lincoln Avenue Water Company in Pasadena, the City of Morgan Hill, the San Gabriel Water Company B-6 Well in Baldwin Park, the Fontana Water Company in Fontana and the City of Riverside. The DHS has issued permits to operate these ion exchange systems and the operating data indicate ion exchange is successfully removing perchlorate. In contrast, biological treatment has been used in fewer locations for removal of perchlorate from the water supply, and there is less regulatory and community acceptance of this type of water treatment system. Although evaluated as a technology, membrane filtration has not yet been tested at a full-scale perchlorate removal water treatment system. For all of these reasons, the ion exchange perchlorate removal process was considered the most likely to promptly gain regulatory approval and public acceptance, as well as the treatment method that would most reliably and cost-effectively remove perchlorate.

Comment from Ed and Joan Dunn, 15414 Rhododendron Drive, Canyon Country, CA 91387

(Letter dated September 22, 2005).

Comment 6a: We oppose the cleanup plan as proposed. In the early stages, a totally different and apparently more economical clean-up plan was proposed. That plan would utilize a central location to manifold the contaminated wells, including Newhall County Water District (NCWD) well #11, for treatment at one nearby location. The location and project would probably only require a negative declaration. The output of that treatment facility would be connected to near-by existing mains. Evidently, that plan was scrapped because it would not bring the output water to Castaic Lake Water Agency (CLWA) for their total control. That plan appears to be much more economical than alternative #2 that apparently has been amended to include piping the water a long distance to CLWA's pumping station facility. It is to be noted that alternative #2 suddenly left NCWD's well #11 out completely. We believe NCWD's well #11 can effectively be treated at the wellhead. NCWD's well #11 is located in close proximity to NCWD's wells #12 and #10. There is sufficient NCWD property available for a treatment facility at those well locations. The output of the treatment facility would discharge into NCWD's wells #12 and #10. There is sufficient NCWD property available for a treatment facility at those well locations. The output of the treatment facility would discharge into NCWD's large main pipe in the nearby San Fernando Road. All three NCWD's wells #11, #12, and #10 are already connected to NCWD's main. If the Department of Health Services desired, the output of the treatment facility could be discharged into the adjacent South Fork of the Santa Clara River. In addition, due to NCWD's location south-west of the plume's travel, we believe that the pollution level and length of time to clear the pollution will be greatly reduced.

<u>Response</u>: During the development of alternatives, well-head treatment for NCWD's Well NC-11 was considered. Subsequently, the groundwater modeling performed by CH2MHill indicated that continual pumping of groundwater at Saugus Wells 1 and 2 should limit the flow of groundwater containing perchlorate toward the NCWD

production wells NC-11, NC-12 and NC-13. This predicted result will be confirmed through additional groundwater monitoring and evaluation of the resulting data once Saugus Wells 1 and 2 are restored to service. The potential for future installation of well-head treatment for NCWD Well NC-11 has not been ruled out. Given that the groundwater is currently used for water supply purposes, and its continued use is an important component of the water supply plans for Santa Clarita Valley, it is unlikely that the treated groundwater would be discharged to the river system.

<u>Comment 6b</u>: We suggest that an unbiased, independent engineering firm study all honest options for this cleanup project. We do not have confidence in engineering data or reports that come from Kennedy/Jenks Engineering Company. In our opinion, Kennedy/Jenks tailors their reports to meet the desires of CLWA. CLWA by their actions and statements indicate they wish to control all water resources in the Santa Clarita Valley. We believe that this is what is driving the design of this cleanup.

<u>Response</u>: DTSC does not participate in consultant selection for parties who have entered into a Voluntary Cleanup Agreement. Kennedy/Jenks is CLWA's engineering consultant and the IRAP meets DTSC's requirements.

Comment 6c: It is interesting to note that CLWA indicates that multiple new wells will be drilled far west of the Saugus wells # 1 and # 2. The new location is in the Valencia Water Company's (VWC) service territory adjacent to or at the large, new "Newhall Ranch Project". It is our understanding that VWC had already received approval from the Public Utilities Commission (PUC) to install these wells for the Newhall Ranch Project. It is also our understanding that the location and the expense of these wells is for the purpose of serving the Newhall Ranch Project and was to be paid for by VWC. We question how the drilling of these new wells becomes part of the perchlorate cleanup. We suggest any new wells that are to replace poisoned wells be in the proximity of the area that the poisoned wells were serving.

Response: Installation of replacement water supply wells is not within the scope of the IRAP for this project. Under the proposed containment plan, Saugus Wells 1 and 2 will be pumped continually, but at rates less than their pumping capacities, potentially leaving a groundwater supply gap during drought or other water supply shortage. Replacement Saugus Formation wells are proposed to be consistent with the water supply plans for the Santa Clarita Valley and to fully restore the lost Saugus Formation production capacity. The locations of the two proposed replacement water supply wells were selected based upon hydrogeologic evaluation and with the interest in locating the wells outside of the area of potential impact by perchlorate.

<u>Comment 6d</u>: The plan commandeers a valuable potable main water main for the purpose of transporting polluted water to CLWA's facility. We do not understand how CLWA can legally transport polluted water through a pipe that is not purple in color, as required by law. To compensate for the loss of the potable water main, CLWA is planning to install additional larger potable pipes. We also believe that installing new

potable water pipes, and transporting polluted water through previous potable water pipes located in the streets etc., require a complete EIR.

<u>Response</u>: Approval of proposed modifications to the existing water distribution systems does not fall within DTSC's jurisdiction. CLWA is the lead agency for CEQA and your comment should be forwarded to them.

<u>Comment 6e</u>: We oppose a negative declaration for this disruptive project of piping great distances to transport water to CLWA's pumping station facility and that a complete EIR should be required. We suggest DTSC reject the present plan by CWLA.

Please include and enter into the record, our letter of September 22, 2005 addressed to Ms. Sara Amir on this same subject.

<u>Response</u>: CLWA is the lead agency for CEQA issues. Comments regarding the Mitigated Negative Declaration should be forwarded to CLWA.

Letter dated September 23, 2005

<u>Comment 6f</u>: On September 7, 2005, in a community meeting at Santa Clarita, we voiced our concerns about how we believed this plan was a "done deal". (We videotape all Castaic Lake Water Agency (CLWA) meetings, including committee meetings). To back up our statements we are supplying a tape of two meetings of CLWA.

After a presentation of the remedy piping system on May 26, 2005, at a planning and engineering committee meeting, Mr. Masnada, General Manager of CLWA, says, "The other aspect is, we're proceeding ahead with the containment and treatment regardless of what happens...".

At the second meeting on June 8, 2005, a regular meeting of CLWA, after the same presentation, Mr. Masnada says "As I recall, there's 23 and a half million in the budget for this..."! "We are moving ahead right now to implement the remedy...".

Both of these meetings occurred before your meeting September 7<sup>th</sup> 2005, where you state that it is not a "done deal". We understand that you believed that it was not a "done deal", but you were unaware of CLWA's position.

<u>Response</u>: No decisions were made by DTSC prior to the comment period which ended on September 23, 2005.

Comment 6g: We have a concern about Newhall County Water District's (NCWD) well #11. NCWD's well has been out of service since 1997 and there seems to be little or no activity to solve the loss of the water problem of this well. Well #11 has sufficient NCWD property nearby to install wellhead treatment equipment. There also is a large NCWD water pipe main connected to well #11 that could accommodate the output of the

treatment system. Furthermore, well #11 appears to be out of the mainstream area of the contaminant plume. We believe that well #11 would not require treatment for a long period of time, thus reducing the total cost of clean-up. We also believe the output of the treatment system, if desired, could be varied by the hydrogeologist as desired.

We believe CLWA is intentionally ignoring NCWD's well #11 with the intent to have the well destroyed and/or get complete control of the well. We do not know of any study, such as test wells around well #11, to check for perchlorate flow or any engineering data showing restoration of well #11.

<u>Response</u>: Please see the response to Comment 6a. Whittaker has installed several groundwater monitoring wells upgradient (east) of Well NC-11. NCWD's recent request for additional investigation of groundwater in this area is being currently discussed with Whittaker and DTSC.

<u>Comment 6h</u>: We do not have confidence in engineering data or reports that come from the Kennedy-Jenks Engineering Company. It is our opinion, Kennedy/Jenks tailors their reports to meet the desires of CLWA. CLWA has made it clear they desire to get control of all water in our community.

Response: See response to Comment 6b.

<u>Comment 6i</u>: Please enter this writing and tape as additional comments to the Interim Remedial Action Plan.

<u>Response:</u> The response to comments will be included in an appendix of the IRAP.

Comment from Ms. Pat Saletore, Santa Clarita Organization for Planning the Environment, P. O. Box 1182, Canyon Country, CA 91386

Comment 7a: We believe that a mitigated negative declaration is not a sufficient document for the preferred alternative project. Such a document might be considered sufficient for the alternatives that propose clean up only at the well head, but the extensive piping and centralization of water supply by the preferred alternative are not adequately addressed by a mitigated negative declaration. Should this alternative continue to be considered, we request that the DTCS address the following issues in a full or focused environmental impact report:

- 1. There will be substantial impacts to the Santa Clara River from the piping. Impacts to the river and its habitat were not addressed. These should be fully mitigated by restoration or public acquisition of additional wetland areas.
- 2. The pipes to pump and distribute remediated water are over-sized for the clean-up needs and therefore will accommodate new growth. This should be addressed as a growth inducing impact.

<u>Response</u>: CLWA is the lead agency on the CEQA documents. Comments on the CEQA documents should be directed to CLWA.

<u>Comment 7b</u>: Further, we concur with the Sierra Club comments and believe the containment plan is deficient in the following areas. These areas should be redressed before the plan is approved.

- 1. There are additional contaminants in the pollution plume that will not be removed or treated by the proposed plan. How will these pollutants including TCE, PCE and NDMA be removed? Some of these are known carcinogens.
- 2. There is no proposal to remove any pollution at the source, yet there are pollution hot spots registering as high as 58,000 ppb on the site. Without a source/site clean-up plan, large quantities of pollution will continue to emanate from the site. We cannot understand why ONLY well head treatment is being proposed and not source clean-up. This may indicate that the water agencies feel not reducing supply is far more important than solving the problem at the source. Failure to address source clean-up is an area in which we feel that policy may be driven by developer water supply concerns rather than good long-term public policy that protects the community's health.
- 3. The containment wells may very well not work. The whole proposal is based on existing wells so that the water districts can continue to pump. The hydrology is simulated and may not be accurate when the plan is implemented. The CLWA proposal utilizes existing wells that may not capture the plume as planned. What alternative is proposed to address a deficiency of this containment plan?
- 4. The proposal to pump everything into CLWA for clean-up will give CLWA a monopoly over water supply in the Santa Clarita Valley. This will also centralize water supply in the Santa Clarita Valley. Upon review of the recent energy crisis and the solutions now being suggested to the energy problem, we believe it is best to have decentralized sources that can be coordinated, rather than one centralized source. Decentralization will ensure efficiency, equity, and public oversight for water supply in an area where there is great concern about the adequacy of this public resource. It will also reduce disruption in the case of an earthquake because supply will continue to be available from multiple sources.

<u>Response</u>: 1. In addition to perchlorate, other contaminants, including volatile organic compounds (VOCs) are present in groundwater in some areas within the Whittaker-Bermite site. Water quality in all groundwater production wells is routinely monitored. The available data from Saugus Wells 1 and 2 do not indicate that contaminants other than perchlorate are present at concentrations requiring treatment. As required by DHS, the proposed plan includes the concept of "sentinel" groundwater monitoring wells to be installed upgradient of Saugus Wells 1 and 2. These sentinel wells will be monitored on a regular basis to evaluate the concentrations of perchlorate and other potential

contaminants in groundwater flowing toward the production wells. If contaminants other than perchlorate are found at concentrations of concern in samples from these sentinel wells, the groundwater treatment system can be modified to add the necessary components to treat the additional contaminants.

- 2. Addressing the sources of contamination is critical, however, investigation and cleanup of the onsite source areas is being conducted by Whittaker under the oversight of DTSC. The groundwater containment plan proposed by CLWA will serve as a component of the overall remedy, but is not the complete remedy. CLWA's project provides containment for the groundwater contamination that has already migrated away from the Whittaker-Bermite site.
- 3. & 4. The proposed pumping plan will capture Saugus Formation groundwater containing perchlorate. Following start up of pumping from the Saugus Wells 1 and 2, groundwater monitoring will be performed to evaluate the effectiveness of capture. Depending upon the resulting data and its evaluation, it is possible that the pumping rates for Wells Saugus 1 and 2 will be modified to achieve the desired containment of groundwater. The decision to decentralize the water supply in the Santa Clarita Valley is not under DTSC's jurisdiction. Please contact CLWA directly with these concerns.

Comment from Connie Worden-Roberts, Chairman, CAG, 25709 Rye Canyon Road, Suite 105 Valencia, CA, 91355

Comment 8a: While it is my intention to write a more substantial response as the Chairperson of the Citizens Advisory Group, circumstances have precluded my plans. However, I would be remiss not to sincerely thank the Department of Toxic Substances Control for the professionalism and thoroughness you have evidenced throughout the past years. You have been responsive to CAG's inquiries, attentive to the magnitude of toxics present in the 996 acre site, and have worked closely with the water agencies to assure the delivery of safe water to the citizens as well as developing a plan for complete cleanup of the entire area. Your work with the Army Corps of Engineers in mapping the entire water system is commendable. Your geologic and environmental studies added greatly in obtaining a comprehensive understanding of the whole area.

On behalf of the CAG, I want to thank you for working with the Water Agencies to assure that potable water would be delivered to the citizens of Santa Clarita. (That is the reason I originally petitioned the State to permit the formation of the CAG.) It is also the reason I am sending you an article from the Daily News which states that the groundwater plan is inadequate. While groups may decry the plan, in the main they have not been in attendance of Multi-jurisdictional or Citizen Advisory Meeting over the years, and assume things which are not true.

I, as well as other sincerely concerned citizens, look forward to continuing to work with DTSC until the entire project is cleansed of any and all pollutants. We are grateful the owners of Bermite Whittaker Corporation have stepped up to their responsibility to pay

for the clean-up, that I recognize is costly. Returning this vital portion of the Valley to a thoroughly clean and productive state is paramount.

Thank you for all of your assistance, may we all be proud of the progress on the clean-up!

<u>Response</u>: Thank you for your comments and especially, for your continued participation in the Citizens Advisory Group.

Comment from Ms. Rachel Myers, Conservation Coordinator, Sierra Club, 3435 Wilshire Blvd, Suite 320, Los Angeles, CA 90010-1904

<u>Comment 9a</u>: The Sierra Club has consistently commented on the ammonium perchlorate pollution plume in the Santa Clarita Valley for many years and before many agencies. These include comments on project approvals granted before remediation facilities are operating, inclusion of polluted water in water plans as though it were available and concerns regarding continued spread of the plume. We litigated the issue of inclusion of the polluted water in CLWA's Urban Water Management plan. That Plan was set aside by the 2<sup>nd</sup> Appellate Court in a published decision last November over these concerns.

We would like to preface this comment letter with a short paragraph addressing the water agencies' (and others') accusations that the environmental community is "just trying to stop growth". That is NOT the basis of our concern, although we realize that ultimately, if the pollution problem is not solved, that may indeed be a needed short term solution. Instead, our goal is to protect public health, especially the health of children. The Sierra Club has been active in many pollution issues on a national level including lead paint, arsenic, and other pollutants that affect children particularly, as well as air pollution contaminants that cause asthma, again affecting children in particular. We therefore request that you ignore and dismiss any such disingenuous accusations and accept these comments as they are intended to be, i.e., legitimate concerns for public health in the Santa Clarita Valley.

<u>Comment 9b</u>: We believe that the containment plan is deficient in the following areas. These areas should be redressed before the plan is approved.

- 1. There are additional contaminants in the pollution plume that will not be removed or treated by the proposed plan. How will these pollutants, including TCE, PCE and NDMA be removed? Some of these are known carcinogens.
- 2. There is no proposal to remove any pollution at the source, yet there are pollution hot spots registering as high as 58,000 ppb on the site. Without a source/site clean-up plan, large quantities of pollution will continue to emanate from the site. We cannot understand why ONLY well head treatment is being proposed and not source clean-up. This indicates to us that the water agencies feel not reducing supply is far more important than solving the problem. Failure to address source

- clean-up is the area in which we feel that policy may be driven by developer water supply concerns rather than good long-term public policy that protects the community's health.
- 3. The containment wells may very well not work. The whole proposal is based on existing wells so that the water districts can continue to pump. The hydrology is simulated and may not be accurate when the plan is implemented. The consultants working on the simulation are all controlled through Valencia Water Co., wholly owned by Lennar/Newhall Corporation. This may create a conflict in goals due to Valencia Water Co.'s parent company development plans.
- 4. This plan is not a proposal like the one in the San Gabriel Valley where granite or non-porous material occurs on each side of the river, funneling the contaminated water into a particular area. That plan strategically placed NEW wells to catch the contamination. The CLWA proposal utilizes existing wells that somehow remarkably occur in exactly the right place to capture the pollution plume. What alternative is proposed to address the failure of this containment plan?
- 5. The pipes to pump and distribute remediated water are over-sized for the clean-up needs and therefore will accommodate new growth. This should be addressed as a growth inducing impact.
- 6. There will be substantial impacts to the Santa Clara River from the piping. Impacts to the river and its habitat were not addressed. These should be mitigated.

Response: 1. Please see response to comment 7b, 1 above.

- 2. Please see response to comment 7b, 2 above.
- 3. Please see response to comments 7b, 3 and 4 above.
- 4. Please see response to comments 7b, 3 and 4 above. Also note that the final cleanup strategy has not been completed for the Whittaker-Bermite site. The proposed pumping of groundwater from Saugus Wells 1 and 2 is an interim measure relative to measures that will be required to address all of the contamination originating at the Whittaker-Bermite site. Pumping from Saugus Wells 1 and 2 is proposed at this time to limit potential future impacts to the Valley's groundwater resources.
- 5. Please see the response to comment 7a. above.
- 6. Please see the response to comment 7a. above.

<u>Comment 9c</u>: Further, the proposal to pump everything into CLWA for clean-up will give CLWA a monopoly over water supply in the Santa Clarita Valley. The Sierra Club wishes to express its concern regarding this idea. Looking at what occurred in the energy recent crisis and the solutions now being suggested to the energy problem, we believe it is best to have decentralized sources that can be coordinated. That will ensure efficiency,

equity, and public oversight for water supply in an area where there is great concern about the adequacy of this public resource.

Response: Please see the response to comments 7b, 3 and 4.

Comment from Ms. Cam Noltemeyer, 25936 Sardinia Court, Valencia, CA 91355

<u>Comment 10a</u>: Why are only the two production wells Saugus 1 and Saugus 2 addressed in this IRAP?

<u>Response</u>: The IRAP addresses the Saugus Formation production wells that have been impacted by perchlorate. Based on the results of the alluvium and Saugus Formation investigation and groundwater modeling performed by the U.S. Army Corp of Engineers, pumping of these two wells will contribute to containing the plume of perchlorate-impacted groundwater.

<u>Comment 10b</u>: Why aren't the contaminated wells in the Newhall County Water District and Valencia Water Company addressed in this IRAP?

<u>Response</u>: As discussed above in the response for Comment 10a, the groundwater modeling performed to date indicates that operation of Wells Saugus 1 and 2 should limit the flow of groundwater containing perchlorate toward NCWD's Well NC-11. If future groundwater monitoring results indicate that NCWD's production wells are threatened, installation of well-head treatment for these wells will be considered.

<u>Comment 10c</u>: Why hasn't there been any public meeting regarding the Valencia Water Company treatment of contaminated water that it intends to dump into the water supply? Their treatment systems are already operating.

<u>Response</u>: DHS is the agency providing oversight and approval of the ion exchange perchlorate removal system for Well Q-2. Please contact this agency with your questions or concerns.

<u>Comment 10d</u>: Why are all the environmental impact reports for the Whittaker-Bermite project being done in a piece meal manner?

<u>Response</u>: There are numerous areas at the Whittaker-Bermite site where chemical releases have impacted soil and groundwater. For ease of management, the site has been administratively divided into Operable Units and the response actions are frequently different and scheduled separately for these Operable Units. Areas where the chemical impact has been characterized can be moved more quickly forward into the remediation phase, while other areas are still being characterized. It does mean that remediation for some areas proceeds faster than others, but the benefits of initiating remediation more rapidly where possible outweigh the drawbacks of waiting for characterization and remediation planning to be complete for the entire site. The proposed pumping of Saugus

Wells 1 and 2 is one of those actions that can be implemented now, without waiting for completion of other activities at the Whittaker-Bermite site.

<u>Comment 10e</u>: Alternative 2, aboveground ion exchange system being used to remove perchlorate from the groundwater pumped from the Saugus 1 and 2 wells will exchange the perchlorate for chloride. How is the chloride removed from the water? How safe is chloride in drinking water?

<u>Response:</u> DHS regulates chlorides in drinking water as a secondary drinking water standard. The long term maximum contaminant level for chloride established by DHS for community water supplies is 250 parts per million (ppm). The chloride level in water produced by the Saugus Formation is between 20 and 40 ppm, well below the secondary drinking water standard. The treatment process is estimated to add less than 1 ppm of chloride to the treated water. Therefore, the concentration of chloride introduced by ion exchange treatment is not expected to be a water quality concern and removal of chlorides from the water is not planned.

<u>Comment 10f</u>: Why isn't the water treated with the ion exchange system returned to the ground water rather than being pumped into our drinking water?

<u>Response:</u> The Saugus Wells 1 and 2 were used for water supply prior to the discovery of perchlorate in samples from these wells. This water is necessary for CLWA to restore the groundwater production capacity that was lost due to perchlorate contamination. CLWA and the other purveyors are responsible for maintaining and providing a safe, sufficient and reliable water supply in the Valley. CLWA will routinely test the water under DHS oversight to ensure that is safe for distribution and consumption.

<u>Comment 10g</u>: Please provide a list of other communities where the ion exchange systems have been used to put perchlorate-contaminated water directly back into the drinking water.

Response: Please see the response to question 5a.

<u>Comment 10h</u>: The ion exchange systems only addressed perchlorate. How are the other two primaries COIs in the groundwater, trichloroethylene (TCE), and tetrachloroethylene (PCE) being treated before putting this water directly into the water supply?

<u>Response:</u> Please see the response to question 7b, 1.

<u>Comment 10i</u>: How are all the other trace amounts of COIs, potential COPCs, VOCs, SVOCs, nitroaromatics and nitroamines (explosive compounds) and nitrosamines being treated before putting this water directly into the water supply?

Response: Please see the response to question 7b, 1.

<u>Comment 10j</u>: Will the pumping of Saugus 1 and Saugus 2 wells contain the toxic plume in the deep Saugus Formation or will it cause the plume to spread?

<u>Response:</u> The groundwater modeling performed to date indicates that the proposed pumping of Saugus Wells 1 and 2 will serve to contain the plume of perchlorate in the Saugus Formation. The modeling results will be re-evaluated using monitoring data obtained after the two production wells are returned to service. As necessary to provide adequate containment of the perchlorate in the Saugus Formation, the proposed groundwater pumping rate may be modified. It is not expected that pumping these wells will cause the plume to spread, and instead the pumping will curtail spreading of the plume.

Comment 10k: It appears that the only reason for this Interim Remedial Action Plan that only covers two of the contaminated wells is the desperate need for the Castaic Lake Water Agency to include this contaminated water as available in their 2005 Urban Water Management Plan. Newhall Land needs proof of water availability to get approval of their 2,200 home West Creek subdivision slated for 990 acres in unincorporated Northern Valencia. Water to be provided by Valencia Water Company that is owned by Newhall Land. Newhall Land also needs water for their 1,089 home Riverpark subdivision. Water to be provided by the Santa Clarita Water Company that is owned by the Castaic Lake Water Agency. It appears that the Castaic Lake Water Agency and the DTSC are more interested in accommodating the greed of developers than protecting the water supply that the public has to drink. Is the purpose of this plan to provide quantity of water without regard to the quality of the water?

<u>Response</u>: The purpose of this plan is to provide containment of the impacted groundwater and to restore the groundwater production capacity that was lost due to the presence of perchlorate. Use of groundwater in the Santa Clarita Valley is an important component of the overall reliability of the water supply, especially during drought conditions or other circumstances where the delivery of imported surface water may be reduced. Prior to the discovery of perchlorate, groundwater from the Saugus Wells 1 and 2 was used for water supply; other than the presence of perchlorate (which will be removed through the proposed ion exchange process), the quality of the Saugus Formation water is unchanged.

<u>Comment 101</u>: I strongly object to having contaminated water from Saugus 1 and Saugus 2 Wells are any other contaminated well being placed directly back into our drinking water supply. If the Valencia Water Company Well V-157 and Newhall County Water District Well NC-11 in the Saugus Formation can be destroyed and replaced with new wells with clean water why can't Santa Clarita Water Company do the same?

Response: Please see response to comment 10f.

Comment from Mr. Joe Weiss, 20305 Gray Lane, Santa Clarita, CA 91351

## **Comment 1:** Excellent explanation – although quite technical. Go for it!

Response: Thank you for your support.

## Mailing List:

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